

● PRINTER RUSH ●

(PTO ASSISTANCE)

Application : <u>10/718373</u>	Examiner : <u>EVANS</u>	GAU : <u>2652</u>	
From: <u>IF</u>	Location: <u>IDC</u> FMF FDC	Date: <u>1-12-06</u>	
Tracking #: <u>EPM-</u> <u>10/718373</u>		Week Date: <u>10-9-00</u>	

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	_____	<input type="checkbox"/> Continuing Data
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<input type="checkbox"/> DRW	_____	
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<input type="checkbox"/> 312	_____	
<input checked="" type="checkbox"/> SPEC	<u>11-20-03</u>	

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 REV 10/04




SELF-ALIGNMENT SCHEME FOR ENHANCEMENT OF CPP-GMR

by

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RELATED PATENT APPLICATION

 This application is related to Docket No. HTIRC02-003, Serial No. 10/392,118, filing date 3/19/03 and to Docket No. HTIRC02-004, Serial No. ~~10718, 312~~ ¹⁰⁷¹⁸³⁷³, filing date ~~3/19/03~~ ^{11/20/2003}, all assigned to the same assignee as the current invention.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to the fabrication of giant magnetoresistive (GMR) magnetic field sensors of a "current-perpendicular-to-the-plane" (CPP) configuration. More particularly, it relates to such a sensor that is geometrically patterned, using a single electron beam formed mask and a self-aligned double lift-off scheme, to lower its resistance and redistribute its current in a manner that increases sensor sensitivity and eliminates local hot-spots caused by excessive Joule heating.

2. Description of the Related Art